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EXAMINER

HARPER, KEVIN C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 02/20/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/588,293

Applicant(s)

DODRILL ET AL.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-22 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Response to Arguments***

Applicant's arguments with respect to claims 1-6 and 8-22 have been considered but are moot in view of the new ground(s) of rejection.

***Drawings***

Corrected drawings were received on November 24, 2003. These drawings are approved.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 12-14, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Callon et al. (US 5,251,205).

1. Regarding claims 1-3 and 12-14, Callon discloses an integrated network switch (Figure 13, any one of items 502-506; col. 50, lines 65-68) having inherent address tables and for determining whether a layer 2 packet includes layer 3 information (col. 51, lines 23-33), selectively performing layer 3 switching based on an inherent the layer 3 destination address in the packet (col. 51, lines 27-30), and selectively performing layer 2 switching based on the determined absence of the layer 3 packet information (col. 51, lines 25-26).
2. Regarding claim 20, the switching decision is based on a packet's priority (col. 45, lines 59-64 and col. 46, lines 11-20).

3. Regarding claim 22, a new MAC address is given which is associated with a router and based on the IP information in the header (col. 512, lines 29-30).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callon et al, as applied to claims 3 or 14 above, in further view of Yoshida et al. (US 5,987,524).

4. Regarding claims 4-6 and 15, Callon does not disclose comparing a source address with a table for storing subnetwork identifiers. Yoshida discloses verifying source IP and MAC addresses and discarding packets with unidentified source IP and MAC addresses in order to provide access to authorized customers (Figure 8, step S51; col. 10, lines 10-22). Therefore, it would have been

obvious to one skilled in the art at the time the invention was made to verify the source IP address of a packet in the invention of Callon.

Claims 8-10, 16-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callon et al, as applied to claims 3 or 14 above, in further view of Tappan (US 5,991,300).

5. Regarding claims 8-9, 16-17 and 21, Callon does not disclose dropping a packet when a TTL reaches zero or decrementing the TTL field prior to outputting a layer 2 packet. Tappan discloses both these features (col. 3, lines 38-41) in order to prevent a packet from having excessive delay or being forwarded in a continual loop. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to decrement the TTL field in a packet or drop a packet when the TTL field reaches zero in the invention of Callon.

6. Regarding claim 10, Callon discloses determining that the MAC address specifies a router and a destination IP address specifying a network node (col. 51, lines 29-30), and inherently replacing the destination MAC address with a MAC address specifying the network node (col. 50, lines 59-62 and col. 51, lines 10-16).

7. Regarding claim 18, the limitations of this claim are addressed in the rejection of claim 15.

8. Regarding claim 19, the limitations of this claim are addressed in the rejection of claims 14-15.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Callon et al, in view of Tappan, as applied to claim 10 above, in further view of Bardet et al. (US 5,260,936).

9. Callon in view of Tappan does not disclose recalculating an IP checksum and MAC cyclic redundancy check. Bardet discloses recalculating IP checksums and MAC CRCs (col. 1, lines 57-61 and col. 2, lines 15-23) in order to prevent errors as a packet is forwarded to another node (col. 1, lines 32-33). Therefore, it would have been obvious to one skilled in the art at the time the

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invention was made to recalculate IP checksums and MAC CRCs in the invention of Callon in view of Tappan.

*Allowable Subject Matter*

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



February 15, 2004

Seema S. Rao  
SEEMA S. RAO 2/17/04  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800